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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,156	09/18/2006	Helmut Konopa	2003P00855WOUS	9474

46726 7590 09/02/2011

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EXAMINER	
ZEC, FILIP	

ART UNIT	PAPER NUMBER
3785	

NOTIFICATION DATE	DELIVERY MODE
09/02/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/560,156	KONOPA, HELMUT	
	Examiner	Art Unit	
	FILIP ZEC	3785	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *12,13,15-23 and 25-37* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *12, 13, 15-23 and 25-37* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed 6/08/2011. Claims 12, 13, 15-23 and 25-37 are pending while claims 1-11, 14 and 24 are canceled.

Response to Arguments

2. Applicant's arguments filed 6/8/2011 have been fully considered but they are not persuasive.

In reference to the applicant's arguments regarding the Trask reference, page 9 last two paragraphs and page 10, first three paragraphs, stating that the Examiner's interpretation of "intermittent" is incorrect and not applicable, according to another web-based dictionary, "intermittent" is also "not steady"; thus, whether "intermittent" is interpreted as "non-constant", "variable" or "not steady", Trask teaches that the circuit (FIG. 7) controls the speed of the fan motor in a variable manner (col 6, lines 66-73).

Further, per applicant's argument that the present specification, page 2, lines 14-21 and FIG. 2, clearly defines "intermittent", the Examiner disagrees. FIG. 2 certainly does not define "intermittent" as it depicts the operating mode of the control circuit with reference to the time profiles of a plurality of operating parameters of the refrigeration device. The specification states that "A variable circulation power of the evaporator ***can be simply achieved*** by making the fan ***capable*** of being deactivated temporarily in the activated phase of the evaporator", which is by no means a clear definition of "intermittent". The further discussion of the control circuit used to "intermittently" operate the fan does not shed any clearer light onto the special meaning of "intermittent". Although applicant's interpretation of "intermittent" is consistent with ordinary definition (second full paragraph of page 10), the Examiner's interpretation of "intermittent" is

also consistent with ordinary definition, thus the features of claim 12 are taught by Trask. As argued further by the applicant on page 12, second to last paragraph, claim language does not call for switching on and off of the fan, as alleged by applicant.

Still further, per applicant's argument that Trask does not teach "a control circuit controlling the operation of said evaporator and said fan set up to intermittently operate the fan during an activation phase of the evaporator", the Examiner respectfully disagrees, per explanation in the previous sentence. Additionally, claim 14 has been cancelled and the limitations from claim 14 have been incorporated into claim 12. Thus, present claim 12 remains rejected under 102(b) over Trask.

In reference to the applicant's arguments regarding the rejections of claim 13, pages 11 and 12, and claims 21-24, 26-34 and 37, pages 14, last paragraph, page 15 and page 16, first three paragraphs, respectively, in light of the response in the previous paragraph, said arguments are non persuasive.

In reference to the applicant's argument regarding the Marques reference, page 12, last paragraph and page 13, first two paragraphs, stating that Marques simply teaches maintaining the fan inactive when the compressor starts a new operative cycle, said teaching is used to improve the primary Trask reference by implementing the electronic circuit (50, FIG. 2), which maintains the fan inactive when the compressor starts a new operative cycle (col 4, lines 15-27) in order to allow the evaporator to cool faster and avoid the dissipation of heat from the fan motor, until the evaporator is sufficiently cooled (col , lines 8-10).

In reference to the applicant's argument regarding the rejection of claims 15 and 16, page 13, last three paragraphs and page 14, first paragraph, Shima is used solely to provide the

teachings of an intermittently operatable evaporator fan, thus whether the compressor is simultaneously working with the fan is not pertinent to the claimed matter that was rejected. The saving switch (25, FIG. 2), which triggers the circuit (21, FIG. 2) and the timer (21a, FIG. 2), enables the fan's intermittence for efficiency purpose (col 7, lines 1-4 and col 1, lines 37-44). Additionally, Shima clearly states that in order "to provide a low temperature storage cabinet the operation of electric fan in the cabinet is controlled based on an air conditioner parameter (difference in pressure between upper and lower compartments of the cabinet, col 1, line 40) to reduce consumption of the electric power without causing any problem discussed above" (col 1, lines 37-44), thus the motivation for combining Trask, Marques and Shima is clearly present.

3. In reference to the applicant's argument regarding the rejection of claim 19, page 14, second section, stating that "the speed control taught by Baker reference has absolutely nothing to do with controlling the speed of a fan inside a no-frost refrigeration device", by combining the teachings of Baker, with Trask and Marques, specifically, the structure which controls the speed of the fan (FIG. 2) per Baker, one of ordinary skill in the art would find it obvious to control the temperature inside of the air conditioned space (enclosure in FIG. 15 of Trask), by varying the speed of said fan, wherein the high speed will result in convective cooling and a rapid lowering of inside temperature. Even though Baker teaches room air conditioning and not "a no-frost refrigeration device", it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Baker, Trask and Marques are clearly all teaching refrigeration devices.

In response to applicant's argument regarding the rejection of claims 21-24, 26-34 and 37, page 16, fourth paragraph, stating that " the Kelly et al. reference is non-analogous art.", it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Kelly teaches a climate control system, i.e. an air conditioner, in a vehicle, while the applicant claims a climate control system for a refrigerator; said systems are clearly related. Further, the applicant argues, page 17, second paragraph, that "In the present instance, the subject matter of the Kelly et al. reference logically would not have commended itself to an inventor's attention in considering his or her invention as a whole.". Kelly teaches an antifogging system, which is a subsystem of a climate control apparatus; fogging is a form of humidification, thus, an antifogging system in Kelly is clearly and logically related to a dehumidification system, as claimed by the applicant. Additionally, applicant argues that Kelly teaches a different manner in which the fan is controlled based on the various parameters, than what is claimed in the present invention, pages 17-19. The applicant is reminded that the teachings of Kelly, mainly using a measured relative humidity or moisture by the controller to offset blower motor speed, do not preclude the controller to offset said blower motor speed in a different manner (taught by Pesko, as explained in the rejection of claims 35 and 36). Kelly is simply teaching that there are numerous sensed inputs, including relative humidity (RELHUM), a reference temperature (REFTEMP), windglass temperature (WfNTEMP), outside air temperature (OAT), solar loading (SOLAR), passenger compartment air temperature (PCAT), a set temperature (SET) and discharge air temperature (DAT), which

the microprocessor-based control unit 90 is responsive to (col 3, lines 5-13), that are used in order to effectively control the fog prevention or, more accurately, windshield glass dehumidification.

In reference to the applicant's arguments regarding the rejections of claim 25, page 20, in light of the response in the previous five paragraph, said arguments are non persuasive.

In response to applicant's argument regarding the rejection of claims 35 and 36, page 20, last paragraph and page 21, first paragraph, stating "that the Pesko et al. reference clearly is not within the field of Applicant's endeavor.", it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Pesko teaches an energy management system for buildings having a plurality of individually controlled spaces, i.e. a heating, ventilating and air conditioning (HVAC) system energy management, while the applicant claims a climate control system for a refrigerator; said systems are clearly related. Further, the applicant argues, page 21, second through fourth paragraph, that "In the present instance, the subject matter of the Pesko et al. reference logically would not have commended itself to an inventor's attention in considering his or her invention as a whole.". Pesko teaches an energy management system for an HVAC system employing evaporating heat exchangers and fans, wherein it is determined that more moisture is efficiently removed from the air when the fan is operated at a low speed than when it is operated at a high speed. Thus, per remark on page 22, third paragraph, one of ordinary skill in the art would find it obvious to utilize said teaching of Pesko and improve the system of Trask and Kelly by

lowering the fan speed (in system of Trask) while utilizing various air conditioning inputs in factoring the humidity of the system (sensors and controller of Kelly), in order to provide a dehumidifier that is both cost efficient and effective (Pesko).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 2,549,547 to Trask (Trask).

In reference to claim 12, Trask discloses a no-frost refrigeration device (FIG. 15, with the refrigeration producer inside of cabinet 70, described in detail in FIG. 4-7; max temperature over the frosting point; col 9, lines 35-37), comprising a storage compartment (enclosure in FIG. 15; col 9, line 21); an evaporator (45, FIG. 4) which is alternately activated and deactivated (col 7, lines 3-10; inherently corresponding to the work of condenser since the temperature of the refrigerant in the evaporator is controlled by the condenser; col 7, lines 35-37), and located in a chamber (space inside of 70, FIG. 15) separated from said storage compartment (enclosure in FIG. 15; col 9, line 21); a fan (46, FIG. 4); and a control circuit (FIG. 7) which makes an average circulation power of said fan variable (58, FIG. 7) during an activation phase of said evaporator (relay 56, FIG. 7) based on at least one air conditioning parameter (humidity; col 6, lines 63-75 and col 7, lines 1-5), said control circuit controlling the operation of said evaporator (col 6, lines 45-55) and said fan set up to intermittently (interpreted as a variable, non-constant, non-steady

operation) operate said fan during the activation phase of the evaporator (fan 46, driven by a variable speed fan motor 47; col 6, lines 29-30).

In reference to claim 17, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, and Trask also teaches that said activation phase of said evaporator and said fan can be set to different non-zero speeds (col 7, lines 19-30; capable of being set).

In reference to claim 18, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 17, and Trask also teaches that said control circuit for controlling the operation of said evaporator and said fan is set to operate said fan (46, FIG. 4) at one of a plurality of selectable non-zero speeds when said evaporator is activated (col 7, lines 19-30; capable of being operating per circuit in FIG. 7).

In reference to claim 20, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 18, and Trask also teaches said control circuit (61, FIG. 7) is coupled to an air conditioning sensor (humidistat 57, FIG. 7) that records the at least one air conditioning parameter (humidity; col 5, line 13-15) and said control circuit regulates the speed of said fan using the at least one air conditioning parameter recorded by said sensor (col 6, lines 63-75 and col 7, lines 1-5).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of U. S. Patent 5,490,394 to Marques et al. (Marques).

In reference to claim 13, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, and but Trask does not teach that said fan that can be switched off temporarily during said activation phase of said evaporator. Marques teaches a fan control system for the evaporator of refrigerating appliances (FIG. 1-3) wherein the activation of the compressor (40, FIG. 1) by the respective thermostat will not cause the activation of the fan 20, which will remain inactive, until there is detected again a certain minimum temperature difference between the air admitted into the evaporator 30 and the inside of the appliance, by the first and second sensors (S1 and S2, FIG. 2) and electronic circuit (50, FIG. 2), which maintains the fan inactive when the compressor starts a new operative cycle (col 4, lines 15-27) in order to allow the evaporator to cool faster and avoid the dissipation of heat from the fan motor, until the evaporator is sufficiently cooled (col , lines 8-10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, to allow the fan to be turned off during the activation of the evaporator, as taught by Marques, in order to allow the evaporator to cool faster and avoid the dissipation of heat from the fan motor, until the evaporator is sufficiently cooled.

8. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of U. S. Patent 5,931,011 to Shima et al. (Shima).

In reference to claim 15, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, but does not teach a selector switch on which a duty cycle can be set

for said intermittent operation of said fan. Shima teaches a saving switch (25, FIG. 2), which executes the main program of the freezing cycle (col 4, line 67) and inherently controls the operation of the dryer (16, FIG. 2) in order to automatically reduce consumption of the electric power in a reliable manner (col 7, lines 1-10 and 20-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, to include a saving switch, which executes the main program of the freezing cycle and inherently controls the operation of the dryer, as taught by Shima, in order to automatically reduce consumption of the electric power in a reliable manner.

In reference to claim 16, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, and Trask also teaches said control circuit (61, FIG. 7) is coupled to an air conditioning sensor (humidistat 57, FIG. 7) that records the at least one air conditioning parameter (humidity; col 5, line 13-15), but does not teach that said control circuit regulates a duty cycle as a function of the at least one air conditioning parameter recorded by a sensor. Shima teaches a thermoswitch (23, FIG. 2), which initiates the main program of the freezing cycle (col 4, line 67) and controls the operation of the dryer (16, FIG. 2) based on the air conditioning parameter (temperature of the cabinet; col 5, lines 20-25) in order to automatically reduce consumption of the electric power in a reliable manner (col 7, lines 1-10 and 20-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, to include a thermoswitch which initiates the main program of the freezing cycle and controls the operation of the dryer based on the air

conditioning parameter, as taught by Shima, in order to automatically reduce consumption of the electric power in a reliable manner.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of U.S. Patent 4,315,413 to Baker (Baker).

In reference to claim 19, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 18, but does not teach a selector switch on which a speed for operation of said fan can be set. Baker teaches a selective temperature control system (FIG. 2), wherein by using "fan only" button (44, FIG. 2), in conjunction with the high speed (or "HI") button (43, FIG. 2) or the medium speed ("MED") button (45, FIG. 2) or the low speed ("LOW") button (47, FIG. 2) the fan (26, FIG, 1) is energized at the particular speed selected in order to provide a user friendly system available for selecting a particular speed related to the level of comfort.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, and have the speed of the fan controlled based on the user input, as taught by Baker, in order to provide a user friendly system available for selecting a particular speed related to the level of comfort.

10. Claims 21-23, 26-34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of U.S. Patent 6,508,408 to Kelly et al. (Kelly).

In reference to claims 28 and 30, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, but Trask does not teach that the at least one air conditioning parameter is a moisture value of one of ambient air and a temperature of ambient air outside the no-frost refrigeration device. Kelly teaches a system for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the measured relative humidity or

moisture (94, FIG. 1; col 1, lines 55-57) and outside air temperature (col 3, lines 5-13) are used by the controller (90, FIG. 1) to offset blower motor speed (43, FIG. 1; col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47). It is noted that the air moisture and air humidity are considered to be the equivalent factor.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, and have the fan controlled based on the measured humidity outside the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claim 29, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, and Trask does not teaches that the at least one air conditioning parameter is an estimated moisture value of air in the at least one storage compartment (humidity; col 5, line 13-15), but does not teach that the at least one air conditioning parameter is an estimated moisture value of one of ambient air. Kelly teaches a system for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dew point temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, and have the fan controlled based on the estimated moisture outside the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claim 31, Trask discloses the no-frost refrigeration device as explained in the rejection of claim 12, and Trask also teaches that the control circuit makes the average circulation power of said fan variable during the activation phase of said evaporator based on the at least one air conditioning parameter (as explained in the rejection of claim 12 above), but does not teach to use a predefined target value of a humidity of air in the at least one storage compartment as basis for controlling the fan. Kelly teaches a system for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the air dew point temperature is estimated based on a value of relative humidity or moisture (col 1, lines 55-57) and subsequently use said value to offset blower motor speed (col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, wherein the fan is controlled based on the humidity outside the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

In reference to claims 21-23, 26-27 and 32-34, they claim the method of providing and configuring the apparatus of claims 28-31, thus, they are rejected based on the rejection of apparatus as explained in the rejection of claims 28-31 above and the associated method steps, which follow directly from the use of the apparatus, are rejected accordingly.

In reference to claim 37, Trask teaches a no-frost refrigeration device (FIG. 15, with the refrigeration producer inside of cabinet 70, described in detail in FIG. 4-7; max temperature over the frosting point; col 9, lines 35-37), comprising at least one storage compartment (enclosure in FIG. 15; col 9, line 21); an evaporator chamber (36, FIG. 4) that is separated from the storage compartment; an evaporator (45, FIG. 4) which is alternately activated and deactivated (col 7, lines 3-10; inherently corresponding to the work of condenser since the temperature of the refrigerant in the evaporator is controlled by the condenser; col 7, lines 35-37) located in the evaporator chamber; a fan (46, FIG. 4) that circulates air between the storage compartment and the evaporator chamber; a control circuit (FIG. 7) which makes an average circulation power of the fan variable (58, FIG. 7) during an activation phase of the evaporator (relay 56, FIG. 7) based on at least one air conditioning parameter (humidity; col 6, lines 63-75 and col 7, lines 1-5); and at least one air conditioning sensor (humidistat 57, FIG. 7) that records the at least one air conditioning parameter (humidity; col 5, line 13-15), wherein the at least one air conditioning parameter is a moisture value of one of ambient air and air in the at least one storage compartment, wherein the control circuit intermittently operates the fan during the activation phase of the evaporator (col 6, lines 63-75 and col 7, lines 1-5), and wherein the control circuit (61, FIG. 7) is coupled to the at least one air conditioning sensor (humidistat 57, FIG. 7) and the control circuit regulates the speed of the fan using the at least one air conditioning parameter

recorded by the sensor (col 6, lines 63-75 and col 7, lines 1-5), wherein said air conditioning parameter is air in the at least one storage compartment (humidity; col 5, line 13-15), but does not teach that the at least one air conditioning parameter is a moisture value of one of ambient air. Kelly teaches a system for controlling the climate control system in a vehicle (col 1, lines 50-52) wherein the measured relative humidity or moisture (94, FIG. 1; col 1, lines 55-57) is used by the controller (90, FIG. 1; col 3, lines 5-13) to offset blower motor speed (43, FIG. 1; col 1, lines 55-63) in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect (col 1, lines 43-47). It is noted that the air moisture and air humidity are considered to be the equivalent factor.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, and have the fan controlled based on the measured humidity outside of the cooled enclosure, as taught by Kelly, in order to automatically adjust the operation of a climate control setting without producing unnecessarily abrupt or large deviations from the climate control setting otherwise in effect.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of Kelly as applied to claim 21 above, and further in view of Shima.

In reference to claim 25, Trask and Kelly teach the method as explained in the rejection of claim 21 above, and Trask also teaches said control circuit (61, FIG. 7) is coupled to an air conditioning sensor (humidistat 57, FIG. 7) that records the at least one air conditioning parameter (humidity; col 5, line 13-15), but does not teach that said control circuit regulates a duty cycle as a function of the at least one sensed by the air conditioning parameter. Shima

teaches a thermoswitch (23, FIG. 2), which initiates the main program of the freezing cycle (col 4, line 67) and controls the operation of the dryer (16, FIG. 2) based on the air conditioning parameter (temperature of the cabinet; col 5, lines 20-25) in order to automatically reduce consumption of the electric power in a reliable manner (col 7, lines 1-10 and 20-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Trask and Kelly, to include a thermoswitch which initiates the main program of the freezing cycle and controls the operation of the dryer based on the air conditioning parameter, as taught by Shima, in order to automatically reduce consumption of the electric power in a reliable manner..

12. Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask in view of U.S. Patent 6,290,140 to Pesko et al. (Pesko).

In reference to claim 35, Trask discloses the refrigeration device as explained in the rejection of claim 12, but does not teach that the control circuit decreases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is greater than a moisture value constant. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, to decrease the power of the fan when the

sensed humidity is higher, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

In reference to claim 36, Trask discloses the refrigeration device as explained in the rejection of claim 12, but does not teach that the control circuit selectively decreases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is greater than a moisture value constant, and increases the average circulation power of the fan during the activation phase of the evaporator when the moisture value is less than the moisture value constant. Pesko teaches an energy management system and method wherein it is determined that more moisture is removed from the air when the fan is operated at a low speed than when it is operated at a high speed (col 12, lines 58-60). Thus, the humidity and cooling of temperature controlled space can be independently traded off by increasing and decreasing the respective fan speeds, respectively, based on the sensed humidity (col 12, lines 65-67 and col 13, lines 1-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Trask, to decrease the power of the fan when the sensed humidity is higher and increase the power of the fan when the sensed humidity is lower, as taught by Pesko, in order to optimize the work of the fan during the dehumidifying process.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FILIP ZEC whose telephone number is (571)270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JJ Swan can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J J Swann/
Supervisory Patent Examiner, Art Unit 3785

/F. Z./
Examiner, Art Unit 3785

8/22/2011